



PCT

## RAW SEQUENCE LISTING

DATE: 04/12/2005

PATENT APPLICATION: US/10/501,962A

TIME: 13:37:51

Input Set : A:\PTO.FG.txt

Output Set: N:\CRF4\04122005\J501962A.raw

```

3 <110> APPLICANT: Braun, Klaus
4     Braun, Isabell
5     Debus, Jorgen
6     Pipkorn, Rudiger
7     Waldeck, Waldemar
9 <120> TITLE OF INVENTION: CONJUGATE FOR TREATING PROKARYOTIC INFECTIONS
11 <130> FILE REFERENCE: 4121-170
13 <140> CURRENT APPLICATION NUMBER: 10/501,962A
14 <141> CURRENT FILING DATE: 2004-07-19
16 <150> PRIOR APPLICATION NUMBER: PCT/DE03/00124
17 <151> PRIOR FILING DATE: 2003-01-17
19 <150> PRIOR APPLICATION NUMBER: DE 10201862.6
20 <151> PRIOR FILING DATE: 2002-01-18
22 <160> NUMBER OF SEQ ID NOS: 31
24 <170> SOFTWARE: PatentIn version 3.3
26 <210> SEQ ID NO: 1
27 <211> LENGTH: 15
28 <212> TYPE: DNA
29 <213> ORGANISM: Artificial Sequence
31 <220> FEATURE:
32 <223> OTHER INFORMATION: Synthetic Construct
34 <400> SEQUENCE: 1
35 attgtagat ttcatt                                     15
38 <210> SEQ ID NO: 2
39 <211> LENGTH: 14
40 <212> TYPE: DNA
41 <213> ORGANISM: Artificial Sequence
43 <220> FEATURE:
44 <223> OTHER INFORMATION: Synthetic Construct
46 <400> SEQUENCE: 2
47 tcttggtcaa tcat                                     14
50 <210> SEQ ID NO: 3
51 <211> LENGTH: 600
52 <212> TYPE: DNA
53 <213> ORGANISM: Artificial Sequence
55 <220> FEATURE:
56 <223> OTHER INFORMATION: Synthetic Construct
58 <400> SEQUENCE: 3
59 ttctcatggt tgacagctta tcatcgataa gctttaatgc ggtagtttat cacagttaaa      60
61 ttgctaacgc agtcaggcac cgtgtatgaa atctaacaat gcgctcatcg tcatcctcgg      120
63 caccgtcacc ctggatgctg taggcataagg cttggttatg ccggtactgc cgggcctctt      180
65 gcgggatatc gtccattccg acagcatcgc cagtcactat ggcgtgctgc tagcgctata      240
67 tgcgttgatg caatttctat gcgcaccgct tctcggagca ctgtccgacc gctttggccg      300

```

## RAW SEQUENCE LISTING

DATE: 04/12/2005

PATENT APPLICATION: US/10/501,962A

TIME: 13:37:51

Input Set : A:\PTO.FG.txt

Output Set: N:\CRF4\04122005\J501962A.raw

```

69 ccgcccagtc ctgctcgctt cgctacttgg agccactatc gactacgcga tcatggcgac 360
71 cacaccgctc ctgtggatcc tctacgccgg acgcatcgtg gccggcatca ccggcgccac 420
73 aggtgcggtt gctggcgctt atatcgccga catcacgat ggggaagatc gggctcgcca 480
75 cttcgggctc atgagcgctt gtttcggcgt gggatatggtg gcaggccccg tggccggggg 540
77 actgttgggc gccatctcct tgcatgcacc attccttgcg gcggcggtgc tcaacggcct 600

```

80 &lt;210&gt; SEQ ID NO: 4

81 &lt;211&gt; LENGTH: 109

82 &lt;212&gt; TYPE: PRT

83 &lt;213&gt; ORGANISM: Bacteriophage P1

85 &lt;400&gt; SEQUENCE: 4

87 Met Leu Asp Thr Gln Glu Leu Ala Pro Val Ala Ile Ala Leu Leu Leu

88 1 5 10 15

91 Ser Val Ile Gly Gly Ile Gly Thr Phe Leu Met Asp Val Arg Asp Gly

92 20 25 30

95 Arg Gln Ser Gly Asn Leu Leu Gly Leu Val Thr Glu Ile Phe Val Ala

96 35 40 45

99 Val Thr Ala Gly Ala Val Ala Tyr Leu Leu Gly Gln His Glu Gly Trp

100 50 55 60

103 Glu Leu Ser Ile Thr Tyr Leu Met Val Thr Ile Ala Ser Asn Asn Gly

104 65 70 75 80

107 His Glu Val Ile Ser Gly Met Lys Arg Val Asn Ile Asp Ser Ile Leu

108 85 90 95

111 Asn Val Leu Thr Ser Leu Val Lys Lys Gly Gly Gly Lys

112 100 105

115 &lt;210&gt; SEQ ID NO: 5

116 &lt;211&gt; LENGTH: 68

117 &lt;212&gt; TYPE: PRT

118 &lt;213&gt; ORGANISM: Bacteriophage H19B

120 &lt;400&gt; SEQUENCE: 5

122 Met Glu Lys Ile Thr Thr Gly Val Ser Tyr Thr Thr Ser Ala Val Gly

123 1 5 10 15

126 Thr Gly Tyr Trp Leu Leu Gln Leu Leu Asp Lys Val Ser Pro Ser Gln

127 20 25 30

130 Trp Val Ala Ile Gly Val Leu Gly Ser Leu Leu Phe Gly Leu Leu Thr

131 35 40 45

134 Tyr Leu Thr Asn Leu Tyr Phe Lys Ile Arg Glu Asp Arg Arg Lys Ala

135 50 55 60

138 Val Arg Gly Glu

139 65

142 &lt;210&gt; SEQ ID NO: 6

143 &lt;211&gt; LENGTH: 96

144 &lt;212&gt; TYPE: PRT

145 &lt;213&gt; ORGANISM: Bacteriophage A118

147 &lt;400&gt; SEQUENCE: 6

149 Met Ile Glu Met Glu Phe Gly Lys Glu Leu Leu Val Tyr Met Thr Phe

150 1 5 10 15

153 Leu Val Val Val Thr Pro Val Phe Val Gln Ala Ile Lys Lys Thr Glu

154 20 25 30

157 Leu Val Pro Ser Lys Trp Leu Pro Thr Val Ser Ile Leu Ile Gly Ala

## RAW SEQUENCE LISTING

DATE: 04/12/2005

PATENT APPLICATION: US/10/501,962A

TIME: 13:37:51

Input Set : A:\PTO.FG.txt

Output Set: N:\CRF4\04122005\J501962A.raw

```

158          35          40          45
161 Ile Leu Gly Ala Leu Ala Thr Phe Leu Asp Gly Ser Gly Ser Leu Ala
162          50          55          60
165 Thr Met Ile Trp Ala Gly Ala Leu Ala Gly Ala Gly Gly Thr Gly Leu
166 65          70          75          80
169 Phe Glu Gln Phe Thr Asn Arg Ser Lys Lys Tyr Gly Glu Asp Asp Lys
170          85          90          95
173 <210> SEQ ID NO: 7
174 <211> LENGTH: 143
175 <212> TYPE: PRT
176 <213> ORGANISM: Lactobacillus casei bacteriophage A2
178 <400> SEQUENCE: 7
180 Met Lys Ile Asn Trp Lys Val Ala Val Leu Ser Val Lys Phe Trp Leu
181 1          5          10          15
184 Ala Leu Val Pro Ala Ala Leu Leu Val Val Gln Thr Ala Ala Ala Val
185          20          25          30
188 Phe Gly Tyr Asn Trp Asp Phe Ala Asn Leu Gly Lys Glu Leu Thr Ala
189          35          40          45
192 Val Ile Asn Ala Val Phe Ala Leu Leu Thr Ile Val Gly Val Ala Val
193          50          55          60
196 Asp Pro Thr Thr Glu Gly Val Ser Asp Ser Gln Gln Ala Leu Ala Tyr
197 65          70          75          80
200 Pro Ala Leu Ile Thr Thr Lys Ala Ala Lys Ile Lys Ser Leu Glu Asp
201          85          90          95
204 Gln Ile Lys Ala Leu Gln Ala Asp Lys Ala Ala Asp Gln Ala Thr Ser
205          100          105          110
208 Ala Ala Ser Glu Val Val Pro Glu Thr Ser Ser Ala Ala Pro Ala Glu
209          115          120          125
212 Ser Ala Pro Glu Ser Val Ala Pro Val Ala Ser Glu Glu Val Lys
213          130          135          140
216 <210> SEQ ID NO: 8
217 <211> LENGTH: 142
218 <212> TYPE: PRT
219 <213> ORGANISM: Lactobacillus bacteriophage phig 1e
221 <400> SEQUENCE: 8
223 Met Asp Ile Ile Thr Ser Leu Asn Leu Ala Thr Ala Gly Glu Leu Ala
224 1          5          10          15
227 Leu Ile Ser Phe Phe Ile Gly Val Ile Val Gln Ala Ile Lys Lys Thr
228          20          25          30
231 Gly Lys Val Lys Asn Thr Tyr Leu Pro Phe Ile Ser Met Gly Ile Gly
232          35          40          45
235 Ile Leu Ala Gly Leu Ala Ala Val Val Val Thr Lys Asp Thr Asn Tyr
236          50          55          60
239 Leu Asn Gly Ala Val Ala Gly Leu Ile Val Gly Ala Ala Thr Ser Gly
240 65          70          75          80
243 Leu Thr Asp Gly Leu Ser Val Gly Thr Ser Ala Val Thr Thr Ala Lys
244          85          90          95
247 Ala Thr Lys Asp Ala Ala Lys Thr Ala Ala Ile Thr Gln Ala Val Leu
248          100          105          110

```

## RAW SEQUENCE LISTING

DATE: 04/12/2005

PATENT APPLICATION: US/10/501,962A

TIME: 13:37:51

Input Set : A:\PTO.FG.txt

Output Set: N:\CRF4\04122005\J501962A.raw

```

251 Asn Ser Ile Asn Thr Thr Lys Ser Ser Asp Thr Thr Gln Val Ala Asn
252      115      120      125
255 Thr Ser Asn Thr Glu Gly Gly Ser Thr Ser Glu Thr Gln Lys
256      130      135      140
259 <210> SEQ ID NO: 9
260 <211> LENGTH: 107
261 <212> TYPE: PRT
262 <213> ORGANISM: Lactobacillus delbrueckii subsp. lactis bacteriophage LL-H
264 <400> SEQUENCE: 9
266 Met Thr Leu Ile Asp Trp Phe Asn Leu Ile Val Ala Ile Gly Thr Ile
267 1      5      10      15
270 Ala Leu Ala Val Val Ala Ser Val Tyr Val His Leu Lys Ala Lys Ile
271      20      25      30
274 Asp Thr Lys Thr Ala Ala Gly Lys Ala Phe Asp Leu Val Gly Lys Leu
275      35      40      45
278 Ala Val Trp Ala Val Asn Glu Ala Glu His Ser Gln Asp Gly Gly Ala
279      50      55      60
282 Ala Lys Arg Glu Phe Ala Ala Lys Leu Ile Ser Asp Gln Leu Lys Ala
283 65      70      75      80
286 Lys Gly Ile Thr Gly Ile Asp Glu Lys Met Val Tyr Gly Ala Val Glu
287      85      90      95
290 Thr Ala Trp Lys Glu Ala Ile Glu Asn Val Lys
291      100      105
294 <210> SEQ ID NO: 10
295 <211> LENGTH: 44
296 <212> TYPE: PRT
297 <213> ORGANISM: Lactococcus phage c2
299 <400> SEQUENCE: 10
301 Met Ile Glu Thr Leu Arg Ala Ile Gly Leu Val Val Phe Met Gln Leu
302 1      5      10      15
305 Leu Ser Leu Ala Leu Glu Phe Ile Asp Thr Gly Thr Leu Lys Pro Ser
306      20      25      30
309 Val Arg Lys Lys Arg Ile Ala Val Glu Leu Met Val Leu
310      35      40
313 <210> SEQ ID NO: 11
314 <211> LENGTH: 74
315 <212> TYPE: PRT
316 <213> ORGANISM: bacteriophage phi AM2
318 <400> SEQUENCE: 11
320 Met Phe Phe Asn Asn Lys Phe Tyr Asn Val Ile Lys Trp Ala Val Leu
321 1      5      10      15
324 Thr Ala Leu Pro Ala Leu Ser Val Phe Ile Gly Val Ile Gly Lys Ala
325      20      25      30
328 Tyr Gly Trp Gly Gly Thr Asp Leu Ala Ile Ile Thr Leu Asn Ala Phe
329      35      40      45
332 Thr Val Phe Leu Gly Thr Leu Ala Gly Val Ser Ala Val Lys Tyr Asn
333      50      55      60
336 Ser Gln Pro Asn Asp Thr Lys Glu Asn Lys
337 65      70

```

## RAW SEQUENCE LISTING

DATE: 04/12/2005

PATENT APPLICATION: US/10/501,962A

TIME: 13:37:51

Input Set : A:\PTO.FG.txt

Output Set: N:\CRF4\04122005\J501962A.raw

```

340 <210> SEQ ID NO: 12
341 <211> LENGTH: 88
342 <212> TYPE: PRT
343 <213> ORGANISM: Bacteriophage Tuc2009
345 <400> SEQUENCE: 12
347 Met Asn Gln Ile Asn Trp Lys Leu Arg Leu Lys Ser Lys Ala Phe Trp
348 1 5 10 15
351 Leu Ala Leu Leu Pro Ala Leu Phe Leu Leu Ile Gln Ala Ile Gly Ala
352 20 25 30
355 Pro Phe Gly Tyr Lys Trp Asp Phe Val Ile Leu Asn Gln Gln Leu Ala
356 35 40 45
359 Ala Val Val Asn Ala Ala Phe Ala Leu Leu Ala Ile Val Gly Val Val
360 50 55 60
363 Ala Asp Pro Thr Thr Ser Gly Leu Gly Asp Ser Asp Arg Val Leu Asn
364 65 70 75 80
367 Lys Asp Lys Ser Glu Asn Lys
368 85
371 <210> SEQ ID NO: 13
372 <211> LENGTH: 88
373 <212> TYPE: PRT
374 <213> ORGANISM: Bacteriophage TPW22
376 <400> SEQUENCE: 13
378 Met Asn Gln Ile Asn Trp Lys Leu Arg Leu Lys Ser Lys Ala Phe Trp
379 1 5 10 15
382 Leu Ala Leu Leu Pro Ala Leu Phe Leu Leu Ile Gln Ala Ile Gly Ala
383 20 25 30
386 Ser Phe Gly Tyr Lys Trp Asn Phe Val Ile Leu Asn Gln Gln Leu Ala
387 35 40 45
390 Ala Val Val Asn Ala Ala Phe Ala Leu Leu Ala Ile Val Gly Val Val
391 50 55 60
394 Ala Asp Pro Thr Thr Ser Gly Leu Gly Asp Ser Asp Arg Val Leu Asn
395 65 70 75 80
398 Lys Asp Lys Ser Glu Asn Lys
399 85
402 <210> SEQ ID NO: 14
403 <211> LENGTH: 74
404 <212> TYPE: PRT
405 <213> ORGANISM: Artificial Sequence
407 <220> FEATURE:
408 <223> OTHER INFORMATION: Synthetic Construct
410 <400> SEQUENCE: 14
412 Met Arg Phe Asn Met Leu Lys Asn Ser Glu Thr Thr Gly Ala Tyr Val
413 1 5 10 15
416 Gly Ser Ala Ile Ala Ile Tyr Ser Gly Phe Thr Leu Ala Asp Trp Ala
417 20 25 30
420 Ala Ile Phe Gly Ile Leu Phe Gly Leu Phe Thr Met Leu Ile Asn Trp
421 35 40 45
424 Tyr Tyr Lys Asn Lys Glu Ile Lys Leu Lys Glu Thr Ala Leu Lys Gln
425 50 55 60

```

**VERIFICATION SUMMARY**

DATE: 04/12/2005

PATENT APPLICATION: US/10/501,962A

TIME: 13:37:52

Input Set : A:\PTO.FG.txt

Output Set: N:\CRF4\04122005\J501962A.raw